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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/753,014

02/26/2001

Juan O. Rodriguez

2282/108

1269

2101

7590

09/27/2004

BROMBERG & SUNSTEIN LLP
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BOSTON, MA 02110-1618

EXAMINER

PHUNKULH, BOB A

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,014

Applicant(s)

RODRIGUEZ ET AL.

Examiner

Bob A. Phunkulh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-14, 16-22, 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Abensour et al. (US 5,251,207), hereinafter Abensour.

Regarding claim 1, Abensour discloses a network interface unit (*the combination of FR element 22 and Protocol conversion and Address translation 26, see figure 4*) for connecting a service delivery unit (*SMDS element 24, see figure 4*) to a given medium, the service delivery unit being any one type in a family of different types of service delivery units, each type of service delivery unit in the family providing a network service that is different than the network service provided by the other types of service delivery units in the family, the service delivery unit processing messages received in a first format, the network interface unit comprising:

a medium module (FR element 22, see figure 4) configured to process data for transmission between the given medium and the service delivery unit, the medium module transmitting messages toward the service delivery unit in a second format; and

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an interface module (Protocol conversion and Address translation 26, see figure 4) configured to receive messages transmitted between the medium module and the service delivery unit, the interface module being configured to translate messages from the second format to the first format (see col. 4 lines 28 to col. 5 line 9).

Regarding claim 2, Abensour discloses the network interface unit as defined by claim 1 wherein the service delivery unit transmits messages in the first format, further wherein the medium module processes messages received in the second format, the interface module also being configured for translating messages from the first format to the second format (see figures 4-5; and col. 4 lines 28 to col. 5 line 9).

Regarding claim 3, Abensour discloses the network interface unit as defined by claim 1 wherein all of the different types of service delivery units in the family process data in the first format (see figures 4-5; and col. 4 lines 28 to col. 5 line 9).

Regarding claim 4, Abensour discloses the network interface unit as defined by claim 1 wherein only the any one service delivery unit processes data in the first format, the other service delivery unit types in the family processing data in different formats (see figures 4-5; and col. 4 lines 28 to col. 5 line 9).

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Regarding claim 6. The network interface unit as defined by claim 1 wherein the network service may include at least one of telephony, data service, audio service, video service, and Virtual Private network service (see col. 2 lines 31-34).

Regarding claim 7, Abensour discloses the network interface unit as defined by claim 1 further including: a connector for electrically and physically connecting to the service delivery unit, the connector being a single size that corresponds to the size of connectors on each of the types of service delivery units in the family (see figures 4-5; and col. 4 line 28 to col. 5 line 9).

Regarding claim 8. The network interface unit as defined by claim 1 wherein the medium module includes a network physical layer and media control module (FR element 22, see col. 4 lines 44-59).

Regarding claim 9, Abensour discloses the network interface unit as defined by claim 1 wherein the network interface unit is physically separated from the service delivery unit (see figures 4-5; and col. 4 line 28 to col. 5 line 9).

Regarding claim 10, Abensour discloses the network interface unit as defined by claim 1 wherein the service delivery unit and network interface unit

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together are configured for functioning as data communication equipment for data terminal equipment (see figure 5).

Regarding claim 11, Abensour discloses a service delivery unit for providing a network service, the service delivery unit cooperating with a network interface unit to function as data communication equipment to a network for data termination equipment, the network interface unit being any one type of a plurality of different types of network interface units, each type of network interface unit having the connection logic for connecting to a network medium that is different than the network mediums to which the other types of network interface units can connect, the network interface unit processing messages received in a first format, the service delivery unit comprising:

- a network service module (SDMS element 24, see figures 4-5) that provides the network service, the network service module transmitting messages toward the network interface unit in a second format; and

- an interface module configured for receiving messages transmitted between the network service module and the network interface unit, the interface module being configured to translate messages from the second format to the first format (see figures 4-5; and col. 4 lines 28 to col. 5 line 9).

Regarding claim 12, Abensour discloses the service delivery unit as defined by claim 11 wherein the network interface unit transmits messages in the first format, further wherein the network service module processes messages

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received in the second format, the interface module also being configured to translate messages from the first format to the second format (see figures 4-5; and col. 4 lines 28 to col. 5 line 9).

Regarding claim 13, Abensour discloses the service delivery unit as defined by claim 11 wherein all of the types of network interface units process data in the first format (see figures 4-5; and col. 4 lines 28 to col. 5 line 9).

Regarding claim 14, Abensour discloses the service delivery unit as defined by claim 11 wherein only the network interface unit processes data in the first format, the other types of network interface units processing data in different formats (FR format and SMDS format, see figure 4-5).

Regarding claim 16, Abensour discloses the service delivery unit as defined by claim 11 wherein the network service may include at least one of telephony, data service, audio service, video service, and Virtual Private network service (see col. 2 lines 31-34).

Regarding claim 17, Abensour discloses the service delivery unit as defined by claim 11 further including: a connector for electrically and physically connecting to the network interface unit, the connector being a single size that corresponds to the size of connectors on each of the different types of network interface units (see figures 4-5).

Regarding claim 18, Abensour discloses the service delivery unit as defined by claim 11 wherein the network service module includes application specific hardware and software for providing the network service (see figures 4-5).

Regarding claim 19, Abensour discloses the service delivery unit as defined by claim 11 wherein the service delivery unit is physically separated from the network interface unit (see figure 4-5).

Regarding claim 20, Abensour discloses a modular data communication equipment system comprising:

- a family of different types of network interface units (FR element 22, see figures 4-5), each type of network interface unit having connection logic for connecting to a network medium that is different than the connection media to which the other types of network interface units can connect;

- a family of different types of service delivery units (SMDS element 24, see figures 4-5), each type of service delivery unit providing a network service that is different than the service provided by the other types of service delivery units, the network interface units being configured to communicate with at least one service delivery unit via formatted messages; and

- an interface configured to convert the format of messages transmitted between any one type of the network interface units and any one type of the

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service delivery units (protocol conversion and address translation 26, see figures 4-5).

Regarding claim 21, Abensour discloses the system as defined by claim 20 wherein the interface is distributed across the network interface units and the service delivery units (see figures 4-5).

Regarding claim 22, Abensour discloses the system as defined by claim 20 wherein the interface is configured to receive messages that are specific to one of any type of service delivery unit, the interface also being configured to convert the format of the received messages to a format that is specific to one of any type of network interface unit (see figures 4-5).

Regarding claim 24, Abensour discloses the system as defined by claim 20 wherein the network service may include at least one of telephony, data service, audio service, video service, and Virtual Private network service (FR format and SMDS format, see figure 4-5).

Regarding claim 25, Abensour discloses the system as defined by claim 20 wherein each type of network interface unit includes a first connector for electrically and physically connecting to one service delivery unit (see figures 4-5).

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Regarding claim 26, Abensour discloses the system as defined by claim 25 wherein each type of service delivery unit includes a second connector for electrically and physically connecting to the first connector, the first connector being a single size that corresponds to the size of the second connector (see figures 4-5).

Regarding claim 27, Abensour discloses the system as defined by claim 20 wherein each network interface unit is physically separated from each service delivery unit (see figures 4-5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 15, 23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Abensour.

Regarding claims 5, 15, 23, Abensour fails to explicitly disclose the network interface unit as defined by claim 1 wherein the given medium is a broadband medium implementing at least one of a fiber optic technology, cable technology, or digital subscriber line technology.

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However, it would have been obvious to one having ordinary skill in the art at the time of invention was made to replace either FR network or SMDS network of Abensours with either cable or DSL technology in order to take advantage of widely available and use technology.

Conclusion

Any response to this action should be mailed to:

The following address mail to be delivered by the United States Postal Service (USPS) only:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications intended for entry)

Or:

The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

U.S. Patent and Trademark Office
220 20th Street South
Customer Window, Mail Stop _____
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday

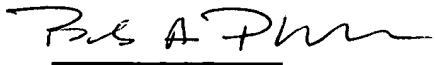
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from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor **Kenneth Vanderpuye**, can be reach on **(571) 272-3078**. The fax phone number for this group is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh



**BOB PHUNKULH
PRIMARY EXAMINER**

TC 2600

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September 21, 2004